

Application No. 10/755,469
Amendment dated August 9, 2005
Reply to Office Action of May 9, 2005

Docket No.: 0941-0895P

AMENDMENTS TO THE DRAWINGS

Attached hereto are two (2) sheets of corrected drawings that comply with the provisions of 37 C.F.R. § 1.84. The corrected drawings incorporate the following drawing changes:

In Fig. 1, the legend "Related Art" has been added; and

In Fig. 5A, reference numeral "104b" has been amended to --104d--.

It is respectfully requested that the corrected drawings be approved and made a part of the record of the above-identified application.

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REMARKS

Claims 1-19 are now present in this application.

The specification has been amended, and claims 10-19 have been presented. Reconsideration of the application, as amended, is respectfully requested.

Objection to the Drawings

The drawings stand objected to for an informality. Accordingly, attached hereto is a replacement sheet for Fig. 1, in which the legend "Related Art" has been added. It is therefore respectfully submitted that this objection has been address and should be withdrawn.

Amendments to the Claims

With regard to newly presented claims 10, 12 and 16, a limitation "the chip paddle is protruding from the leads" has been added to more clearly identify a novel and non-obvious feature of the claimed invention. Support for this limitation can be found in originally filed FIG. 2. It should be understood to one of ordinary skill in the art that Fig. 2 shows a chip paddle 102 protruding from the leads 104. It is therefore respectfully submitted that no new matter has been added.

With regard to newly presented claims 11, 13, and 17, a limitation "the chip is surrounded by the chip paddle and the leads" has been added to more clearly identify a novel and non-obvious feature of the claimed invention. Support for this limitation can be found in originally filed FIG. 2. It should be understood to one of ordinary skill in the art that Fig. 2

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shows the chip 101 being surrounded by the chip paddle 102 and the leads 104. It is therefore respectfully submitted that no new matter has been added.

With regard to newly presented claims 14 and 18, a limitation "the wire-connecting surface and the wire non-connecting surface of the leads are opposing" has been added to more clearly identify a novel and non-obvious feature of the claimed invention. Support for this limitation can be found in originally filed FIG. 5A. It should be understood to one of ordinary skill in the art that Fig. 5A shows that the surfaces 104c and 104d are opposing. It is therefore respectfully submitted that no new matter has been added.

With regard to newly presented claim 15, a limitation "the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation" has been added to more clearly identify a novel and non-obvious feature of the claimed invention. Support for this limitation can be found in originally filed FIG. 5A. It should be understood to one of ordinary skill in the art that Fig. 5A shows the surfaces 101b and 104d being exposed in the same surface of the encapsulation 106. It is therefore respectfully submitted that no new matter has been added.

With regard to newly presented claim 19, a limitation "the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation, and the opposing non-adhering surface of the chip paddle are exposed in an opposing surface of the encapsulation" has been added to more clearly identify a novel and non-obvious feature of the claimed invention. Support for this limitation can be found in originally filed FIG. 6A. It should be understood to one of ordinary skill in the art that Fig. 5A shows surfaces 101b and 104d being exposed in the same surface of the encapsulation 106, and surface

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102b being exposed in an opposing surface of the encapsulation 106. It is therefore respectfully submitted that no new matter has been added.

Rejection under 35 USC 102(b)

Claims 1-9 stand rejected under 35 USC 102(b) as being anticipated by HUANG et al., U.S. Patent 6,198,171. This rejection is respectfully traversed.

Claims 1, 4 and 7

It is respectfully submitted that independent claims 1, 4 and 7 recite "the tie bars connecting to the chip paddle and attached to the active surface of the chip". See Figs. 3, 6-8 and page 6, lines 7-9 of the application, for example.

Huang et al. does not teach or suggest "the tie bars attached to the active surface of the chip". Indeed, Huang et al. teaches the tie bars 201 above the active surface of the chip 208 in Fig. 4, a top view. This top view Fig. 4, however, fails to show the tie bars 201 attached to the active surface of the chip 208. Neither cross-sections nor the specification of Huang et al. show, teach, or suggest the tie bars being attached to the active surface of the chip. Accordingly, it is respectfully submitted that independent claims 1, 4 and 7, as well as their dependent claims, are neither taught nor suggested by the prior art utilized by the Examiner.

Claims 10, 12 and 16

It is noted that dependent claims 10, 12 and 16 recite "the chip paddle is protruding from the leads". Huang et al., however, teaches that the chip paddle and the leads are coplanar. The

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Examiner's attention is drawn to Figs. 3 and 5-7 of Huang et al., which show the **coplanar die pad (chip paddle) 200 and leads 202, and coplanar die pad (chip paddle) 318 and leads 326.**

Huang et al. therefore does not teach or suggest the chip paddle being protruding from the leads. It is therefore respectfully submitted that claims 10, 12 and 16 are neither taught nor suggested by the prior art utilized by the Examiner.

Claims 11, 13 and 17

It is noted that claims 11, 13 and 17 recite that "the chip is surrounded by the chip paddle and the leads". Huang et al., however, teaches that the chip paddle and the leads are **beneath the chip**. The Examiner's attention is drawn to Figs. 1, 3 and 5-7 of Huang et al., which show that the die pad (chip paddle) 100 and the leads 102 are **beneath the chip 106**, the die pad (chip paddle) 200 and the leads 202 are **beneath the chip 208**, and the die pad (chip paddle) 318 and the leads 326 are **beneath the chips 304 and 310**.

Huang et al. therefore does not teach or suggest that the chip is surrounded by the chip paddle and the leads. It is therefore respectfully submitted that claims 11, 13 and 17 are neither taught nor suggestion by the prior art utilized by the Examiner.

Claims 14 and 18

It is noted that claims 14 and 18 recite that "the wire-connecting surface and the wire non-connecting surface of the leads are opposing". Huang et al., however, teaches that the wire-connecting surface and the wire non-connecting surface of the leads are **NOT** opposing. The Examiner's attention is drawn to Figs. 3 and 7 of Huang et al., which show that the wire-

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connecting surface and the wire non-connecting surface of the leads belong to a stepped structure of the surfaces 206b and 328b.

Huang et al. therefore does not teach or suggest that the wire-connecting surface and the wire non-connecting surface of the leads are opposing. It is therefore respectfully submitted that claims 14 and 18 are neither taught nor suggested by the prior art utilized by the Examiner.

Claim 15

It is noted that claim 15 recites that "the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation". Huang et al., however, teaches that the non-active surface of the chip and the wire non-connecting surface of the leads are exposed in opposing surfaces of the encapsulation. The Examiner's attention is drawn to Fig. 5 of Huang et al., which shows that the back (non-active) surface 210b of the chip 208 and the leads 202 are exposed in opposing surfaces of the molding compound (encapsulation) 218.

Huang et al. therefore does not teach or suggest that the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation. It is therefore respectfully submitted that claim 15 is neither taught nor suggested by the prior art utilized by the Examiner.

Claim 19

It is noted that claim 19 recites that "the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation."

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and the opposing non-adhering surface of the chip paddle are exposed in an opposing surface of the encapsulation". Huang et al., however, teaches that the non-active surface of the chip and the wire non-connecting surface of the leads are exposed in **opposing** surfaces of the encapsulation, and the non-adhering surface of the chip paddle and the wire non-connecting surface of the leads are exposed in **the same** surface of the encapsulation. The Examiner's attention is drawn to Fig. 5 of Huang et al., which shows that the back (non-active) surface 210b of the chip 208 and the leads 202 are exposed in **opposing** surfaces of the molding compound (encapsulation) 218, and the non-adhering surface of the chip paddle 200 and the wire non-connecting surface of the leads 202 are exposed in **the same** surface of the molding compound (encapsulation) 218.

Huang et al. therefore does not teach or suggest that the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation, and the opposing non-adhering surface of the chip paddle are exposed in an opposing surface of the encapsulation". It is therefore respectfully submitted that claim 19 is neither taught nor suggested by the prior art utilized by the Examiner.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the claims of the present application. Accordingly, reconsideration and withdrawal of the 35 USC 102(b) rejection are respectfully requested.

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

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Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning these documents are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachments

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